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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/542,670	04/04/2000	Alex Urich	155696-0024	5579

7590 08/13/2003

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EXAMINER	
NGUYEN, VI X	
ART UNIT	PAPER NUMBER
3731	10

DATE MAILED: 08/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/542,670	Applicant(s) URICH ET AL.	
	Examiner Victor X Nguyen	Art Unit 3731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 May 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-66* is/are pending in the application.

4a) Of the above claim(s) *13-28,49-52 and 63-66* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,29-48 and 53-62* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 6, 10 and 11are rejected under 35 U.S.C .102 (e) as being anticipated by Urich et al. (U.S.6,027,515).

Regarding claims 1 and 6, Urich et al show in figures 1- 2, a circuit (28) is coupled to a transducer (18) that can drive a cutting element (14), wherein the transducer (18) has a frequency which can operate in a resonant mode (col. 4, lines 4-10); wherein the control circuit (28) provides a driving signal to the transducer (18); wherein said driving signal includes a plurality of pulses (col. 4, lines 4-15) that causes the transducer to operate in a non-resonant mode, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Regarding claims 10 and 11, Urich et al show in figure 1, wherein the resonant mode is in an ultrasonic frequency range (col. 3 lines10-20 and col. 4, lines 4-14); and wherein the cutting element (14) is a tip (fig. 1).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-5, 7-9 and 12 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Orich et al (6,425,883) in view of Cimino (6,027,515).

Regarding claims 2 and 7, Orich et al are explained as before. However, Orich et al do not disclose the pulses are provided in a plurality of packets which are separated by pauses. Cimino teaches the pulses are provided in a plurality of packets which are separated by pauses(figs 2a, 2b and col. 8, lines 33-48).

It would have been obvious to one having ordinary skill in the art at the same time the invention was made to modify Orich et al by adding the pulses are provided in a plurality of packets which are separated by pauses as taught by Cimino in order to cut tissue with a minimize of heat. Regarding claims 3 and 8, Cimino shows in figures 2a, 2b, wherein the pulses have a frequency approximately at the natural frequency of the cutting element (13). Regarding claims 4-5, 9 and 12, Cimino shows in figures 2a, 2b, wherein each packet has a time duration less than about 1 milliseconds (col. 4 lines 61-66); wherein

each pause has a time duration that prevents a significant amount of heat by the cutting element (13).

Claims 29,32,35,38,41,44,45,48,53,56,59 and 62 are rejected under 35 U.S.C .103 (a) as being unpatentable over Kellogg et al (U.S.5,897,569) in view of Klopotek et al (U.S. 5,196,006).

Kellogg et al show in figures 1, 4, 5 and abstract, col. 3 lines 19-45, a console (30) can be coupled to a hand piece (80) that has a reciprocating tip (88); wherein a control circuit (36) that is coupled to the console (30) and generates packet of pulses. However, Kellogg et al do not disclose wherein each packet is separated by a pause period of no pulses.

Klopotek et al teach each packet is separated by a pause period of no pulses (fig. 5b, abstract).

It would have been obvious to one having ordinary skill in the art at the same time the invention was made to modify Kellogg et al by adding each packet is separated by a pause period of no pulses as taught by Klopotek et al in order to cut tissue with a minimize of heat.

Regarding claims 44 and 48, Kellogg et al disclose the temperature does not exceed 45 degrees centigrade (col. 3 lines 29-34).

Claims 30-31,33-34,36-37,39-40,42-43,46-47,54-55,57-58 and 60-61 are rejected under 35 U.S.C 103 (a) as being unpatentable over Kellogg et al (5,897,569) in view of Cimino(6,027,515).

Regarding claims 30-31,33-34,36-37,39-40,42-43,46-47,54-55,57-58 and 60-61, Kellogg et al disclose the invention substantially as claimed. However, Kellogg et al do not disclose each packet has a time duration between 0.5-5.0 milliseconds. Furthermore, each pause period has a time duration between 3.5-50 millisecond. Cimino teaches each packet has a time duration between 0.5-5.0 milliseconds and each pause period has a time duration between 3.5-50 millisecond (col. 8 lines 16-24).

It would have been obvious to one having ordinary skill in the art at the same time the invention was made to modify Kellogg et al by adding each packet has a time duration between 0.5-5.0 milliseconds and each pause period has a time duration between 3.5-50 millisecond as taught by Cimino in order to minimize the substantial amount of heat at the cutting tip and improve the reliability of the device.

Response to Arguments

3. Applicant's arguments filed 05/16/2003 have been fully considered but they are not persuasive. Applicant's arguments with respect to claims1,6,29,32,35,38,41,45,53,56 and 59 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor X Nguyen whose telephone number is (703) 305-4898. The examiner can normally be reached on M-F (8-4.30 P.M).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Milano can be reached on (703) 308-2496. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3590 for regular communications and (703) 305-3590 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

Victor X Nguyen
Examiner
Art Unit 3731

vn VN
August 10, 2003

MICHAEL J. MILANO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700